

Clean version of all pending claims

81. A method of inducing apoptosis of a cell, said method comprising (a) administering to said cell by intratumoral injection a nucleic acid encoding a polypeptide comprising the sequence of SEQ ID NO.: 4 and capable of inducing apoptosis, said nucleic acid operably linked to a heterologous regulatory sequence for expression of said polypeptide, and (b) expressing said nucleic acid in said cell, wherein expressing said nucleic acid in said cell induces apoptosis of said cell.

85. The method of claim 81, wherein said regulatory sequence is capable of expressing said nucleic acid in a constitutive, inducible, or cell-type specific manner.

86. The method of claim 81, wherein said nucleic acid is in an adenoviral vector or a retroviral vector.

87. The method of claim 81, wherein said cell is a cancer cell.

88. A pharmaceutical composition comprising (i) an expression vector comprising a nucleic acid encoding an E4orf4 polypeptide comprising the sequence of SEQ ID NO.: 4 and capable of inducing apoptosis, and (ii) a pharmaceutically acceptable carrier, wherein said nucleic acid is operably linked to a heterologous regulatory sequence for expression of said E4orf4 polypeptide in a mammalian cell, and wherein E4 polypeptides other than said E4orf4 polypeptide are not expressed by said vector.

92. The composition of claim 88, wherein said regulatory sequence is capable of expressing said nucleic acid in a constitutive, inducible, or cell-type specific manner.

93. The composition of claim 88, wherein said nucleic acid is in an adenoviral vector or a retroviral vector.

95. An expression vector comprising a nucleic acid encoding an E4orf4 polypeptide comprising the sequence of SEQ ID NO.: 4 and capable of inducing apoptosis, wherein said nucleic acid is operably linked to a heterologous regulatory sequence for expression of said E4orf4 polypeptide in a mammalian cell, and wherein E4 polypeptides other than said E4orf4 polypeptide are not expressed by said vector.

99. The expression vector of claim 95, wherein said regulatory sequence is capable of expressing said nucleic acid in a constitutive, inducible, or cell-type specific manner.

100. The expression vector of claim 95, wherein said expression vector is an adenoviral vector or a retroviral vector.